

STATEMENT OF BASIS
Anniston Army Depot
Anniston, AL
Calhoun County
301-0023

This proposed Title V Major Source Operating Permit significant modification is issued under the provisions of ADEM Admin. Code R. 335-3-16. The above named applicant has requested authorization to perform the work or operate the facility shown on the application and drawings, plans and other documents attached hereto or on file with the Air Division of the Alabama Department of Environmental Management, in accordance with the terms and conditions of this permit.

The purpose of this modification is to incorporate equipment covered by Air Permits into the Major Source Operating Permit (MSOP) that have been issued to Anniston Army Depot since the last issuance. The Air Permits that are being incorporated into the Title V are the following:

X085	Engine Test Cell 12 – Building 410
X086	Four (4) Spray Bake Booths – Building 433
X087	235 kW (318 HP) Diesel Fired Emergency Generator – Sewage Treatment Plant
X088	Thermal Treatment Closed Disposal Process (TTCDP) – Building 670
X089	Diesel Fired Emergency Generator 275 kW (369 HP) – Building 201

The purpose of this modification is also to remove the Building 409 vapor degreaser from the Major Source Operating Permit as the unit no longer uses Trichloroethylene (TCE), so it is no longer subject to 40 CFR Part 63 Subpart T.

Based on the Title V Permit application ANAD is a major source for Particulate Matter (PM₁₀/PM_{2.5}), Sulfur Dioxide (SO₂), Nitrogen Oxide (NO_x), Carbon Monoxide (CO), Volatile Organic Compounds (VOC), Hazardous Air Pollutants (HAPs), and Greenhouse Gases (GHGs).

Engine Test Cell 12 – Building 410

This test cell is used to test reciprocating engines up to 750 HP. The engines burn JP8, F24, or diesel fuel. The test cell will be incorporated into the engine testing section of the existing MSOP.

MACT Subpart P

The test cell is considered an affected source and is therefore subject to 40 CFR Part 63 Subpart P, “National Emission Standards for Hazardous Air Pollutants for Engine Test Cells/Stands”. The test cell, however, does not have to meet the requirements of 40 CFR Part 63 Subpart P and Subpart A based on the exemptions in §63.9290(b) and §63.9290(d)(1).

Emission Standards:

Test cell # 12 in Building 410 shall burn no more than a total of 114,975 gallons of JP8, F24, or diesel fuel in any consecutive rolling twelve month period.

ADEM Admin. Code R. 335-3-14-.04 (Anti-PSD)

Expected Emissions:

The expected emissions from the test cell are based on AP-42 emission factors and the expected hours of operation or fuel usage limit where applicable. The expected emissions are shown below:

Pollutant	lb/hr	TPY
PM ₁₀ /PM _{2.5}	0.228	1.00
SO ₂	0.52	2.3
NO _x	8.08	35.4
CO	1.74	7.60
VOC	0.64	2.8

Periodic Monitoring:

This unit is not subject to any additional monitoring requirements other than those listed in the general provisos.

CAM:

These sources are uncontrolled; therefore, CAM does not apply.

Recordkeeping and Reporting:

Records of the monthly and rolling twelve month totals documenting the type and amount of fuel combusted in the test cell shall be kept in permanent form suitable for inspection. These records must be maintained for a minimum of 5 years following the day of such record.

ADEM Admin. Code R. 335-3-16-.05(c)

Four (4) Spray Bake Booths – Building 433

These paint booths replaced two existing paint booths (Emission Points K0698 and K0723) currently listed in the MSOP. The paint booths are used to paint tracked and wheeled military vehicles. The paint booths are equipped with natural gas direct fired air handlers to assist in curing the paint. These paint booths will be incorporated into the surface coating operations section of the MSOP.

Emission Standards:

Emissions of Volatile Organic Compounds (VOCs) from all operations at the Four (4) Spray Bake Booths at Building 433 (including but not limited to surface coating, storage, cleanup, etc.,) shall not exceed 46.0 tons in any consecutive rolling twelve month period, based on the premise that all VOCs applied are emitted.

ADEM Admin. Code R. 335-3-14-.04 (Anti-PSD)

Expected Emissions:

The expected emissions from the paint booths are based on AP-42 emission factors, mass balance, actual or expected paint usage, and 99 % particulate filter removal efficiency. The expected emissions are shown below:

Pollutant	lb/hr	TPY
PM ₁₀	0.206	0.901
PM _{2.5}	0.137	0.599
SO ₂	0.0108	0.0473
NO _x	1.80	7.88
CO	1.51	6.62
VOC	5.03	22.03
HAPs	1.49	6.52

Periodic Monitoring:

The dry filter(s) associated with each paint booth shall be inspected on at least an annual basis to ensure maintenance is performed in such a manner as to minimize the emission of particulate matter.

ADEM Admin. Code R. 335-3-16-.05(c)

CAM:

These sources do not have pre-controlled potential emissions greater than any major source threshold; therefore, CAM does not apply.

Recordkeeping and Reporting:

Records of the required dry filter inspections, along with records of any maintenance performed on the filter(s) shall be kept in a form suitable for inspection for at least five years following the date of generation of the record.

ADEM Admin. Code R. 335-3-16-.05(c)

Accurate and understandable records, concerning VOC emissions shall be kept in a form suitable for inspection for at least 5 years following the date of the record. These records will be made available immediately upon request and will contain the following information:

- (a) The type, quantity in gallons, and weight in lbs, of each VOC containing materials used each calendar month.
- (b) The VOC content by weight (in pound per gallon) of each VOC containing material used, determined by EPA Test Method 24, as defined in 40 CFR Part 60, Appendix A, or equivalent vendor data approved by the Department in advance. The VOC content of coatings may be determined by test method on a random basis to verify formulation data and such other times as the Department may request.
- (c) The percent by volume and percent of weight of VOCs, solids, water and content of each VOC containing materials used each calendar month.
- (d) Complete inventories of VOC containing materials (their usage with VOC content) shall be made at the end of each calendar month. Compliance with VOC limits shall be based upon these monthly materials use inventories and the use and control efficiency of the particulate filters. Emissions calculations and records will also incorporate the use and control efficiency of the particulate filters.
- (e) The amount of VOCs emitted each calendar month expressed in the units of pounds and tons.
- (f) The rolling twelve month total of VOCs emitted in the units of pounds and tons.

ADEM Admin. Code R. 335-3-16-.05(c)

Thermal Treatment Closed Disposal Process (TTCDP) – Building 670

The TTCDP consists of two process lines for thermal destruction of fuze-less M77 submunition grenade bodies and fuze assemblies that are generated as a result of disassembly of M26 Multi Launch Rocket System rocket pods. The system uses electrically operated induction coils to heat the grenade bodies for thermal decontamination, and an electrically heated armored chamber to demilitarize the fuze assembly. A hood and duct system will convey the gases from both process lines, through a high-efficiency particulate air (HEPA) filter to remove particulates, to a single stack using an induced draft fan.

Emission Standards:

PM:

Emissions of particulate matter shall not exceed the lesser of 2.77 lbs/hr or that which is calculated using the process weight equation, as defined in ADEM Admin. Code R. 335-3-4-.04(1), as determined by EPA Reference Method 5 as found in Appendix A of 40 CFR 60 (latest edition).

ADEM Admin. Code R. 335-3-4-.04(1)

Opacity:

This unit shall not discharge into the atmosphere more than one 6-minute average opacity greater than 20% in any 60-minute period. At no time shall any source discharge a 6-minute average opacity of particulate emissions greater than 40%. Opacity will be determined by 40 CFR Part 60, Appendix A, Method 9, unless otherwise specified in the Unit Specific provisos of this permit.

ADEM Admin. Code R. 335-3-4-.01(1)

Expected Emissions:

The expected emissions are based on a combination of POLU combustion modeling for energetics and calculations and analytical testing for non-energetics. The expected HCN emissions are based on test results and analysis from a similar source, which combusts Nylon 6. The expected emissions are shown below:

Pollutant	lb/hr	TPY
PM₁₀/PM_{2.5}	0.00237	0.0104
CO	5.30	23.2
HCN	0.0285	0.12
Lead Compounds	0.0000906	0.000397
Barium Compounds	0.0000039	0.0000171
Antimony Compounds	0.00000366	0.000016

Periodic Monitoring, Recordkeeping, & Reporting:

This source is not subject to any emissions standards other than those in the general provisos. Therefore the source is not subject to any additional monitoring or recordkeeping and reporting requirements other than those listed in the general provisos.

CAM:

These sources do not have pre-controlled potential emissions greater than any major source threshold; therefore, CAM does not apply.

NSPS Subpart IIII – Compression Ignition Emergency Generators

The 235 kW (318 HP) Diesel Fired Emergency Generator – Sewage Treatment Plant and the Diesel Fired Emergency Generator 275 kW (369 HP) – Building 201 are classified as compression ignition emergency generators, because they are fueled by diesel fuel. These emergency generators are subject to the applicable requirements in 40 CFR Part 63 Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE)) and 40 CFR Part 60 Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines). These generators will be incorporated into the NSPS Subpart IIII – Compression Ignition Emergency Generators section of the existing MSOP.

MACT Subpart ZZZZ:

The Emergency Generators must meet the requirements of Subpart ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart IIII, for compression ignition engines.

40 CFR Part 63 Subpart ZZZZ, §63.6590(c)(6)

Emission Standards:

NSPS Subpart IIII:

These units are subject to the applicable emission standards listed in Table 1 to 40 CFR Part 60 Subpart IIII and 40 CFR §60.4202(a)(2).

40 CFR Part 60 Subpart IIII, §60.4205(a) & §60.4205(b)

These units must be certified according to 40 CFR Part 60 Subpart IIII for the same model year and maximum engine power.

40 CFR Part 60 Subpart IIII, §60.4205(b)

These units must be installed and configured according to the manufacturer's specifications.

40 CFR Part 60 Subpart IIII, §60.4211(a) & §60.4211(b)

The facility must operate and maintain these units according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.

40 CFR Part 60 Subpart IIII, §60.4206

These units must use diesel fuel that meets the requirements of 40 CFR §80.510(b).

40 CFR Part 60 Subpart IIII, §60.4207(b)

The Permittee must install a non-resettable hour meter prior to startup of the engines.

40 CFR Part 60 Subpart IIII, §60.4209(a)

These units may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of these units are limited to 100 hours per year. There is no time limit on the use of these units in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards

require maintenance and testing of emergency ICE beyond 100 hours per year . These units may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in 40 CFR 60 Subpart IIII, is prohibited.

40 CFR Part 60 Subpart IIII, §60.4211(f)

Expected Emissions:

The expected emissions are based on AP-42 emission factors, manufacturer's certifications, and a maximum operation of 500 hours per year. The expected emissions are shown below:

Pollutant	lb/hr	TPY
PM ₁₀ /PM _{2.5}	0.14	0.036
SO ₂	0.76	0.190
NO _x	4.01	1.00
CO	1.10	0.275
VOC	0.961	0.240

Periodic Monitoring, Recordkeeping, & Reporting:

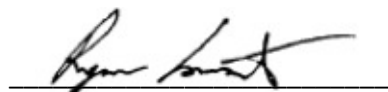
Based on the low level of expected emissions from these sources, the sources are not subject to any additional monitoring or recordkeeping and reporting requirements other than those listed in the general provisos.

CAM:

These sources are uncontrolled; therefore, CAM does not apply.

Recommendation

Based on the above analysis and pending the resolution of any comments received during the 30-day public comment period and 45 day EPA review, I recommend issuing Anniston Army Depot's Title V MSOP modification.



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April 20, 2015

Date